

### **ABSTRACT**

The present invention provides a method for inducing gamete maturation in marine worms of the family *arenicolidae* and which exhibit epidemic spawning. In the method, male and/or female worms in a housing substrate (such as sand) in sea water are maintained at a temperature of 4 to 8°C for 14 to 24 days, preferably 5 to 7°C for 20 to 22 days. Spawning of the worms can then be induced either by exposure to suitable spawning promoting hormones or by raising the temperature of the sea water to 12 to 14°C.